

REMARKS

Reexamination and reconsideration in light of the foregoing amendments and following remarks is respectfully requested.

I. AMENDMENTS

Claims 13 and 15 are pending. Claims 1 through 12, 14, 16 and 18 - 27 have previously been withdrawn from further consideration since they have been found to read on non-elected inventions.

II. CLAIM REJECTION UNDER 35 U.S.C. § 102(E)

Claims 13 and 15 are rejected under 35 U.S.C. §102(e) as being anticipated by Newmark et al. (col. I, lines 14-17, col. 3, lines 55-60, col. 4, lines 30-end, col. 6, lines 25-35) or Babish et al. (paragraphs 25, 33, 34).

The Examiner states on page 4, second paragraph of the Action that:

“The references each teach that hops are extracted with supercritical CO₂. As noted by FR 2590589 (already of record) it is noted that when hops are extracted with supercritical CO₂ iso-alpha acids are formed. Thus, when each of the references extracted hops with supercritical CO₂ they produced iso-alpha acids and as noted in the references each reference administered the hops extracts (which would include iso-alpha acids) to treat inflammation and pain which would clearly read on the claimed subject matter. Note also that Babish does explicitly mention iso-alpha acids at paragraph 34 such as isohumulone. Thus, providing further evidence that when the supercritical CO₂ is used, iso alpha acids are indeed formed.”

The Applicant respectfully disagrees with the Examiner's contention.

The Applicant maintains that iso alpha acids are not produced in supercritical CO2 extracts and that at least one additional process step subsequent to supercritical CO2 extraction is required to produce iso alpha acids.

The Applicant first cites Chapter 1 of Developments in Food Science 27: Chemistry and Analysis of Hop and Beer Bitter Acids (M. Verzele and D. De Keukeleire eds., Elsevier, 1991; copy appended) as showing that iso alpha acids are not found in hops (see Section 1.4.2 and Table 1 at pages 8-9 and Section 1.4.4 pages 11 – 14). The Examiner's attention is specifically directed to the first two complete paragraphs on page 13 of the reference where the authors specifically point out that the iso alpha acids may occasionally be formed during the heating process used to remove the ethanol when used in a solvent extraction process. The Applicant maintains that by specifically distinguishing ethanolic extracts from supercritical CO2 extracts that iso alpha formation may occur as part of an ethanol extraction process but does not occur during supercritical CO2 extraction.

The Examiner's attention is next directed to the appended Technical Specification sheets from the Barth-Haas Group for their CO2 Hop Extract and Isohop products. As indicated, the CO2 hop extract (either as a supercritical CO2 extract or subcritical CO2 extract) does not contain iso alpha acids. Further note that their Isohop product is described as being produced from the aforementioned CO2 extract, further supporting the Applicant's contention that iso alpha acids are not found in supercritical CO2 extracts.

Finally, The Applicant respectfully maintains that the Examiner's reliance of FR 2590589 as support for the contention that "*when the supercritical CO2 is used, iso alpha acids are indeed formed*" is incorrect. Appended hereto is a screen capture of the Delphion database Derwent abstract of FR 2590589. As can be seen, FR 2590589 is directed to a process for the photoisomerization of alpha acids into iso alpha acids during the supercritical CO2 extraction process. The Applicant maintains that since the photoisomerization process can only be performed on the extracted alpha acid that this isomerization process is therefore one process step removed from the extraction process

(as mentioned above). As such, the Applicant respectfully asserts that FR 2590589 does not support the Examiner's contention that iso alpha acids are formed or found in supercritical CO2 extracts.

The Applicant maintains that neither Newmark et al. nor Babish et al., are anticipatory to the instant invention insofar as supercritical CO2 extracts do not contain iso alpha acids as the Examiner contends. As such, it is respectfully submitted that the inventions of Claims 13 and 15 are patentable over Newmark *et al.*, or Babish *et al.* For these reasons the Applicant respectfully requests the reconsideration and earnest allowance of Claims 13 and 15

III. CLAIM REJECTION UNDER 35 U.S.C. § 103(A)

Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newmark et al. (col. I, lines 14-17, col. 3, lines 55-60, col. 4, lines 30-end, col. 6, lines 25-35) or Babish et al. (paragraphs 25, 33, 34). The Applicant respectfully disagrees.

The Examiner argues that,

“[t]he references each teach that hops are extracted with supercritical CO₂. As noted by FR 002590589 (already of record), it is noted that when hops are extracted with supercritical CO₂ they produced iso-alpha acids and as noted in the references each reference administered the hops extracts (which would include iso-alpha acids) to treat inflammation and pain which would clearly read on the claimed subject matter. Note also that Babish does explicitly mention iso-alpha acids at paragraph 34 such as isohumulone. Thus, providing further evidence that when the supercritical CO₂ is used, iso alpha acids are indeed formed”

The Applicant maintains that the issue of whether iso alpha acids are formed during supercritical CO₂ extraction has been addressed above in regards to the rejection under 35 U.S.C. §102(e) and for the sake of brevity will not be repeated here. As such, the Applicant further contends that Newmark *et al.*, or Babish *et al.*, even if combined with FR 2590589 fails to render the instant invention obvious.

Accordingly, it is respectfully submitted that the inventions of Claims 13 and 15 are patentable over Newmark *et al.*, or Babish *et al.*, and for these reasons the Applicant respectfully requests the reconsideration and allowance of amended Claims 13 and 15.

III. CONCLUSION

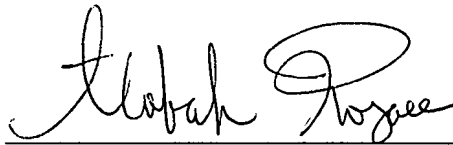
On the basis of the foregoing remarks and amendments, Applicants respectfully submit that claims 13 and 15 are in condition for allowance. Passage to issue is respectfully requested.

If there are any questions regarding these remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

A Request for a Three (3) Month Extension of Time, up to and including November 30, 2007 is included herewith. Pursuant to 37 C.F.R. § 1.136(a)(2), the Examiner is authorized to charge any fee under 37 C.F.R. § 1.17 applicable in this instant, as well as in future communications, to Deposit Account 50-1133.

Furthermore, such authorization should be treated in any concurrent or future reply requiring a petition for an extension of time under paragraph 1.136 for its timely submission, as constructively incorporating a petition for extension of time for the appropriate length of time pursuant 37 C.F.R. § 1.136(a)(3) regardless of whether a separate petition is included.

Respectfully submitted,
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- Attachment 1: Chapter 1 of Developments in Food Science 27: Chemistry and Analysis of Hop and Beer Bitter Acids (M. Verzele and D. De Keukeleire eds., Elsevier, 1991).
- Attachment 2: Technical Specification sheets from the Barth-Haas Group for their CO2 Hop Extract and Isohop products.
- Attachment 3: Delphion database Derwent abstract of FR 2590589.

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